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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MENGISTU, AMARE	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/914,463	SIVERSSON, PER	
	Examiner	Art Unit	
	Amare Mengistu	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-13 and 15-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-13 and 15-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *Aug.29,2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 7-13, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over van **Ketwich** (6,072,475) in view of **SATO MICHIAKI** (JP 11-220523).

3. In regard to claim 1, van **Ketwich** discloses a handheld electronic device having a display unit (fig. 8a (1520)) and touch surface (fig.8a (1512)) that is position sensitive in a first and second direction (figs. 3b-3d) for control of the electronic apparatus, wherein the apparatus has a front side (fig.8 (1520)) and an edge side from the front side (fig.8, the edge side of (1520)), and the display unit has a display area taking up a majority of the front side of the apparatus (figs.8a,8b (1520)), and the touch surface is arranged on front side of the apparatus and is curved in the first direction to convex shape (fig.8a (1512), fig.9 (1612b)).

Ketwich did not expressly detailed that the touch surface is arranged on the edge side of the apparatus. However, the patent of **SATO MICHIAKI** (hereinafter **SATO)** clearly teaches that it is well known for a handheld device to have the touch surface is arranged on the edge side of the apparatus (fig.2 (3a), also see page 3 of 5 [0016], [0017], [0018] of the English translation).

Therefore it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to incorporate the touch surface arrangement of **SATO** into

the apparatus of **Ketwich** because this will allow **Ketwich's** touch surface to locate at the edge side of the device to provide convience and simplicity for the user to easyly activate the touch surface by finger or thumb while holding the handheld device by hand.

In regard to claim 2, van **Ketwich** discloses the above described apparatus, wherein the touch surface is longer in the second direction than in the first direction (see figure 2).

In regard to claim 3, van **Ketwich** discloses the above described apparatus, wherein the touch surface is single curved about a linear geometric axis (see column 3, lines 60-61) parallel with the second direction (see figure 2). Here it is inherently understood that a "U-shape" is single curved about a linear geometric axis.

In regard to claims 7 and 8, see figure 8a.

In regard to claim 9, **Ketwich** discloses that the touch surface is divided in the second direction into at least two part-surfaces, as best understood. See figure 8a and column 9, lines 36-45, disclosing, "The system 1552...displays a number of icons 1550 on the display 1520...at a position adjacent to a predetermined region of the U-shaped touch screen 1511. On the activation of the touch screen 1511 by a 'touch' of a user on one of the predetermined regions, the function which corresponds to the icon adjacent to the 'touched' predetermined region is executed by the system 1552." These predetermined regions are "part-surfaces", as best understood.

In regard to claim 10, **Ketwich** in combination with **SATO** teach a curved touch surface at the edge side of the apparatus (see the rejection of claim 1 above), but failed to teach having a second curved touch surface in the opposite side of said edge side touch surface.

It would have would have been obvious to one skill in the art at the time of the invention was made to duplicate **Ketwich** and **SATO** first curved touch surface in the opposite side of the edge touch surface since this is a know method of simple Engineering.

Furthermore, the court decided that duplicating of parts is not patentable (see, **St. Regis Paper Co. v. Bemis Co., Inc., 193 USPQ 8,11 (7th Cir. 1977).**

In regard to claim 11, van **Ketwich** discloses the above described apparatus, wherein the touch surface is formed by an outer side of a resilient outer foil (see column 6, line 12) having two edges located parallel to said linear geometric axis (see figure 8a) and at which the resilient outer foil is clamped so that, as a direct result of its striving to assume a flat form, it is tensioned to a convexly single-curved, resilient surface (see column 7, lines 6-7). Here it is understood that the elastic nature of the bent conventional touch screen would result in the screen striving to assume a flat form, thereby being tensioned to a convexly single-curved, resilient surface.

In regard to claim 12, van **Ketwich** discloses the above described apparatus comprising a touch surface over which a user is to pass a finger, and means for sensing the position of the finger in said two directions on the touch surface (see column 4, lines 27-30). Also see

rejections of claims 1 and 11. Further, it is inherent that the touch surface is clamped in some way, so that is affixed to the apparatus on which it is being used.

In regard to claim 13, see rejection of claim 2.

In regard to claim 15, van **Ketwich** discloses a curved inner foil arranged inside and spaced from the outer foil. See figure 1b and column 6, lines 1-27, disclosing a "substrate 1001 which has an insulating surface" and a "resilient insulating membrane 1002", among other layers of a conventional touch screen. These layers are an inner foil arranged inside and spaced from an outer foil. Further see figure 2 and column 6, lines 49-50, disclosing they are curved, "The U-shape may be achieved by bending a conventional touch screen."

In regard to claim 18, van **Ketwich** discloses that the apparatus is a mobile telephone. See previous rejection of claim 1 on page 4 of Paper No. 7.

4. Claims 4, 5 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over **Ketwich** 6,072,475 in view of **SATO MICHIAKI** (JP 11-220523) as applied to claim 1 above, and further in view of **Armstrong** (5,729,219).

5. In regard to claims 4, 5 and 19, **Ketwich** in view of **SATO** discloses an invention similar to that which is claimed in claims 4, 5 and 19. See rejection of claim 1 for similarities. Van

Ketwich further discloses that the touch surface has two parallel longitudinal edges between which the curved touch surface runs. This is depicted in figures 2, 4, 8a, and 9-12b.

Ketwich in view of **SATO** does not disclose that the longitudinal edges are united with the front side and rear side, respectively, of the apparatus or that the majority of the curved touch surface is arranged on the side edge of the apparatus and a minor part of the curved touch surface is arranged on the side edge of the apparatus.

Armstrong discloses an invention in which a display is positioned on the front side of an apparatus with a touch surface being positioned on the rear side. This is depicted in figures 5 and 6. Note that with this configuration, the display area utilizes almost all of the front side of the apparatus. Having the touch surface on opposite side of the apparatus allows the user to use the touch surface from one direction while viewing the display from another, as shown in figures 5 and 6.

Moving the touch surface from the front side of an apparatus, as depicted in **Ketwich**, would also allow the user to use the touch surface from different positions and allow the display to use the entire front face of the apparatus. Such concerns and solutions are common and conventional in the design of mobile apparatus incorporating displays and touch surfaces. Thus, placement of the touch surface is a matter of routine design choice, and placing the touch surface anywhere other than the front side, and particularly, the uniting of the longitudinal edges of the touch surface with the front and rear sides of the apparatus or the arrangement of the touch surface mostly on the side edge and partly on the front side, would be an obvious design choice. *Further, the location of parts is often shifted in design choice and does not alter the operation of the invention* ***(In re Japikse, 86 USPQ 70 (CCPA 1950))***.

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ketwich** 6,072,475 in view of **SATO MICHIAKI** (JP 11-220523) as applied to claims 12 and 15 above, and further in view of **Zenk** 4,066,853.

7. In regard to claims 16 and 17, **Ketwich** in view of **SATO** disclose an invention similar to that which is disclosed in claims 16 and 17. See rejections of claims 12 and 15 for similarities. **Ketwich** in view of **SATO** does not disclose that the outer foil has greater curvature than the inner foil or that the outer foil has greater extension in its transverse direction than the inner foil, so that it is brought into a relative distance from the inner foil when the foils are clamped to the convex form along their opposite longitudinal edges.

Zenk discloses an invention with such a configuration of outer and inner foils, depicted in the figures as substrate 10 and membrane 11. See column 4, lines 3-5, disclosing, "If substrate 10 is curved it is preferable that the curvature of membrane 11 when unstressed be slightly greater that that of substrate 10." **Zenk** further teaches in column 4, lines 11-12, "the slightly greater curvature prevents strips 12-16 on membrane 11 from being drawn down tightly onto strips 20-24 and possibly shorting them." Note in lines 33-36 of column 4 that the strips are conductive strips for making a contact point upon application of pressure to the touch surface.

Zenk further discloses in column 4, lines 16-22, "Membrane 11 is securely fastened around its periphery to substrate 10 by tape strips 54 in such a position that conductive strips 12-16 pass across each of conductive strips 20-24 and are spaced therefrom by grid 45 and the natural tendency of membrane 11 to assume its molded-in spherical shape when unstressed."

Note in figure 2 that the outer foil has a greater extension in its traverse direction than the inner foil.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of van **Ketwich** in view of **SATO** by having the outer foil have greater curvature than the inner foil or the outer foil have greater extension in its transverse direction than the inner foil, so that it is brought into a relative distance from the inner foil when the foils are clamped to the convex form along their opposite longitudinal edges, as in the invention of **Zenk**. One would have been motivated to make such a change in order to have a curved touch surface that is functional in that "a contact...can be made by gentle finger or stylus pressure" (see column 4, lines 33-35) and the inner and outer foils do not short, as taught be **Zenk**.

Response to Arguments

17. Applicant's arguments with respect to claims 1-5,7-13,15-19 have been considered but are moot in view of the new ground(s) of rejection.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (571) 272-7674. The examiner can normally be reached on M-F, T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amare Mengistu
Primary Examiner
Art Unit 2673

AM

Aug.2, 2006